IN THE CLAIMS:

Please amend the claims, as follows:

1. (Previously Presented) A wireless communication apparatus which has a wireless communication unit constructed to communicate with a mobile wireless communication device and to execute predetermined processing on the basis of received information, comprising:

an instructing unit constructed to instruct start of authentication processing in order to start communicating with a wireless communication device;

a transmission unit constructed to transmit a search signal containing verification data by the wireless communication unit when a start of authentication is instructed by said instructing unit; and

an authentication unit constructed to transmit authentication information to the wireless communication device, when a response signal is received by the wireless communication unit from one wireless communication device after the search signal is transmitted by said transmission unit and when the verification data is contained in the response signal.

2. (Currently Amended) A wireless communication apparatus which has a wireless communication ~~communication~~ unit constructed to communicate with a mobile wireless communication device and to execute predetermined processing on the basis of received information, comprising:

an instructing unit constructed to instruct start of authentication processing in order to start communicating with a wireless communication device;

a transmission unit constructed to transmit a search signal containing response time interval data by the wireless communication unit when a start of authentication is instructed by said instructing unit; and

an authentication unit constructed to transmit authentication information to the wireless communication device, when plural response signals are received by the wireless communication unit from one wireless communication device at ~~the~~ response time intervals indicated by the response time interval data after the search signal is transmitted by said transmission unit.

3. (Previously Presented) A wireless communication apparatus which has a wireless communication unit constructed to communicate with a mobile wireless communication device and to execute predetermined processing on the basis of received information, comprising:

a detection unit constructed to detect an intensity of a signal received by the wireless communication unit;

an instructing unit constructed to instruct start of authentication processing in order to start communicating with a wireless communication device;

a transmission unit constructed to transmit a predetermined search signal by using the wireless communication unit when a start of authentication is instructed by said instructing unit; and

an authentication unit constructed to transmit authentication information to the wireless communication device, when plural response signals are received by the wireless communication unit from one wireless communication device after the search signal is transmitted by said transmission unit and when an absolute value of a reception

intensity difference between the response signals is larger than a predetermined threshold T1 and less than a predetermined threshold T2 (T2 > T1 > 0).

4. (Previously Presented) A wireless communication apparatus which has a wireless communication unit constructed to communicate with a mobile wireless communication device and to execute predetermined processing on the basis of received information, comprising:

an instructing unit constructed to instruct start of authentication processing in order to start communicating with a wireless communication device;

a setting unit constructed to set an authentication area narrower than a communicative area after authentication with respect to the wireless communication unit when a start of authentication is instructed by said instructing unit;

a transmission unit constructed to transmit a predetermined search signal by the wireless communication unit after the authentication area is set by said setting unit ; and

an authentication unit constructed to transmit authentication information to the wireless communication device, when a response signal is received by the wireless communication unit from one wireless communication device after the search signal is transmitted from said transmitting unit.

5. (Currently Amended) A wireless communication apparatus constructed for communication with a mobile wireless communication device and for execution of predetermined processing, comprising:

a wireless communication unit constructed to switch a normal mode based on authentication information and an authentication mode of performing communication in an authentication area range narrower than an area range in the normal mode;

a detection unit constructed to detect an intensity of a signal received by the wireless communication unit;

an instructing unit constructed to instruct start of authentication processing in order to start communicating with a wireless communication device;

a transmission unit constructed to set the wireless communication unit in the authentication mode and to transmit a search signal containing verification data and response time interval data when a start of authentication is instructed by said instructing unit; and

an authentication unit constructed to transmit authentication information to the wireless communication device, when plural response signals containing the verification data are received by the wireless communication unit from one wireless communication device at ~~the~~ response time intervals indicated by the response time interval data after the search signal is transmitted from said transmission unit and when an absolute value of a reception intensity difference between the response signals detected by said detection unit is larger than a predetermined threshold T1 and less than a predetermined threshold T2 ($T2 > Tl > 0$).

6. (Previously Presented) An electronic device including a wireless communication unit constructed to communicate with a predetermined wireless communication apparatus and to transmit information of a processing target, comprising:

an instructing unit constructed to instruct start of authentication processing in order to start communicating with a wireless communication apparatus;

a first reception unit constructed to receive a search signal by the wireless communication unit when a start of authentication is instructed by said instructing unit;

a transmission unit constructed to transmit plural response signals containing verification data contained in received search information through the wireless communication unit; and

a second reception unit constructed to receive authentication information through the wireless communication unit after transmission is performed by said transmission unit,

wherein when authentication information is received by said second reception unit, communication is subsequently performed with the wireless communication apparatus on the basis of the authentication information.

7. (Previously Presented) An electronic device including a wireless communication unit constructed to communicate with a predetermined wireless communication apparatus and to transmit information of a processing target, comprising:

an instructing unit constructed to instruct start of authentication processing in order to start communicating with a wireless communication device;

a setting unit constructed to set an authentication area narrower than a communicative area after authentication with respect to the wireless communication unit when a start of authentication is instructed by said instructing unit;

a first reception unit constructed to receive a predetermined search signal by the wireless communication unit after the authentication area is set by said setting unit;

a transmission unit constructed to transmit plural response signals through the wireless communication unit in accordance with reception by said first reception unit; and

a second reception unit constructed to receive authentication information through the wireless communication unit after transmission by said transmission unit,

wherein when authentication information is received by said second reception unit, communication is subsequently performed with the wireless communication apparatus on the basis of the authentication information.

8. (Previously Presented) An electronic device including a wireless communication unit constructed to communicate with a predetermined wireless communication apparatus and to transmit information of a processing target, comprising:

an instructing unit constructed to instruct start of authentication processing in order to start communicating with a wireless communication device;

a setting unit constructed to set an authentication area narrower than a communicative area after authentication with respect to the wireless communication unit when a start of authentication is instructed by said instructing unit;

a first reception unit constructed to receive a predetermined search signal by the wireless communication unit after the authentication area is set by said setting unit;

a transmission unit constructed to transmit plural response signals containing verification data contained in received search information through the wireless communication unit at time intervals based on time interval instruction information contained in the search information; and

a second reception unit constructed to receive authentication information through the wireless communication unit after transmission by said transmission unit,

wherein when authentication information is received by said second reception unit, communication is subsequently performed with the wireless communication apparatus on the basis of the authentication information.

9. (Previously Presented) A control method for a wireless communication apparatus which has a wireless communication unit constructed to communicate with a mobile wireless communication device and to execute predetermined processing on the basis of received information, comprising:

an instructing step of instructing to start authentication processing in order to start communicating with a wireless communication device;

a transmission step of transmitting a search signal containing verification data by the wireless communication unit when a start of authentication is instructed in the instructing step; and

an authentication step of transmitting authentication information to the wireless communication device, when a response signal is received by the wireless communication unit from one wireless communication device after the search signal is transmitted in the transmission step and when the verification data is contained in the response signal.

10. (Currently Amended) A control method for a wireless communication apparatus which has a wireless communication unit constructed to communicate with a

mobile wireless communication device and to execute predetermined processing on the basis of received information, comprising:

an instructing step of instructing to start authentication processing in order to start communicating with a wireless communication device;

a transmission step of transmitting a search signal containing response time interval data by the wireless communication unit when a start of authentication is instructed in the instructing step; and

an authentication step of transmitting authentication information to the wireless communication device, when plural response signals are received by the wireless communication unit from one wireless communication device at ~~the~~ response time intervals indicated by the response time interval data after the search signal is transmitted in the transmission step.

11. (Previously Presented) A control method for a wireless communication apparatus which has a wireless communication unit constructed to communicate with a mobile wireless communication device and to execute predetermined processing on the basis of received information, comprising:

a detection step of detecting an intensity of a signal received by the wireless communication unit;

an instructing step of instructing to start authentication processing in order to start communicating with a wireless communication device;

a transmission step of transmitting a predetermined search signal by using the wireless communication unit when a start of authentication is instructed in the instructing step; and

an authentication step of transmitting authentication information to the wireless communication device, when plural response signals are received by the wireless communication unit from one wireless communication device after the search signal is transmitted in the transmission step and when an absolute value of a reception intensity difference between the response signals is larger than a predetermined threshold T1 and less than a predetermined threshold T2 ($T2 > T1 > 0$).

12. (Previously Presented) A control method for a wireless communication apparatus which has a wireless communication unit constructed to communicate with a mobile wireless communication device and to execute predetermined processing on the basis of received information, comprising:

an instructing step of instructing to start authentication processing in order to start communicating with a wireless communication device;

a setting step of setting an authentication area narrower than a communicative area after authentication with respect to the wireless communication unit when a start of authentication is instructed in the instructing step;

a transmission step of transmitting a predetermined search signal by the wireless communication unit after the authentication area is set in the setting step; and

an authentication step of transmitting authentication information to the wireless communication device, when a response signal is received by the wireless communication unit from one wireless communication device after the search signal is transmitted in the transmitting step.

13. (Currently Amended) A control method for a wireless communication apparatus constructed for communication with a mobile wireless communication device and for execution of predetermined processing, comprising:

a wireless communication switching step of switching a predetermined wireless communication unit between a normal mode based on authentication information and an authentication mode of performing communication in an authentication area range narrower than an area range in the normal mode;

a detection step of detecting an intensity of a signal received by the wireless communication unit;

an instructing step of instructing to start authentication processing in order to start communicating with a wireless communication device;

a transmission step of setting the wireless communication unit in the authentication mode and transmitting a search signal containing verification data and response time interval data when a start of authentication is instructed in the instructing step; and

an authentication step of transmitting authentication information to the wireless communication device, when plural response signals containing the verification data are received by the wireless communication unit from one wireless communication device at ~~the~~ response time intervals indicated by the response time interval data after the search signal is transmitted in the transmission step and when an absolute value of a reception intensity difference between the response signals detected in the detection step is larger than a predetermined threshold Tl and less than a predetermined threshold T2 ($T2 > T1 > 0$).

14. (Previously Presented) A control method for an electronic device including a wireless communication unit constructed to communicate with a predetermined wireless communication apparatus and to transmit information of a processing target, comprising:

an instructing step of instructing to start authentication processing in order to start communicating with a wireless communication apparatus;

a first reception step of receiving a search signal by the wireless communication unit when a start of authentication is instructed in the instructing step;

a transmission step of transmitting plural response signals containing verification data contained in received search information through the wireless communication unit; and

a second reception step of receiving authentication information through the wireless communication unit after transmission is performed in the transmission step,

wherein when authentication information is received in the second reception step, communication is subsequently performed with the wireless communication apparatus on the basis of the authentication information.

15. (Previously Presented) A control method for an electronic device including a wireless communication unit constructed to communicate with a predetermined wireless communication apparatus and to transmit information of a processing target, comprising:

an instructing step of instructing to start authentication processing in order to start communicating with a wireless communication apparatus;

a setting step of setting an authentication area narrower than a communicative area after authentication with respect to the wireless communication unit when a start of authentication is instructed in the instructing step;

a first reception step of receiving a predetermined search signal by the wireless communication unit after the authentication area is set in the setting step;

a transmission step of transmitting plural response signals through the wireless communication unit in accordance with reception in the first reception step; and

a second reception step of receiving authentication information through the wireless communication unit after transmission in the transmission step,

wherein when authentication information is received in the second reception step, communication is subsequently performed with the wireless communication apparatus on the basis of the authentication information.

16. (Previously Presented) A control method for an electronic device including a wireless communication unit constructed to communicate with a predetermined wireless communication apparatus and to transmit information of a processing target, comprising:

an instructing step of instructing to start authentication processing in order to start communicating with a wireless communication apparatus;

a setting step of setting an authentication area narrower than a communicative area after authentication with respect to the wireless communication unit when a start of authentication is instructed in the instructing step;

a first reception step of receiving a predetermined search signal by the wireless communication unit after the authentication area is set in the setting step;

a transmission step of transmitting plural response signals, each containing verification data contained in received search information, through the wireless communication unit at time intervals based on time interval instruction information contained in the search information; and

a second reception step of receiving authentication information through the wireless communication unit after transmission in the transmission step,

wherein when authentication information is received in the second reception step, communication is subsequently performed with the wireless communication apparatus on the basis of the authentication information.

17. (Currently Amended) A non-transitory computer-readable storage medium on which is retrievably stored a computer-executable program for a wireless communication apparatus constructed for communication with a mobile wireless communication device and for execution of predetermined processing, wherein said computer-executable program causes the wireless communication apparatus to perform steps comprising:

a detection step of detecting an intensity of a signal received by the wireless communication unit;

an instructing step of instructing to start authentication processing in order to start communicating with a wireless communication device;

a transmission step of transmitting a predetermined search signal by using the wireless communication unit when a start of authentication is instructed in the instructing step; and

an authentication step of transmitting authentication information to the wireless communication device, when plural response signals are received by the wireless communication unit from one wireless communication device after the search signal is transmitted in the transmission step and when an absolute value of a reception intensity difference between the response signals is larger than a predetermined threshold T1 and less than a predetermined threshold T2 ($T2 > T1 > 0$).

18. (Currently Amended) A non-transitory computer-readable storage medium on which is retrievably stored a computer-executable program for an electronic device including a wireless communication unit constructed to communicate with a predetermined wireless communication apparatus and to transmit information of a processing target, wherein said computer-executable program causes the electronic device to perform steps comprising:

an instructing step of instructing to start authentication processing in order to start communicating with a wireless communication apparatus;

a first reception step of receiving a search signal by the wireless communication unit when a start of authentication is instructed in the instructing step;

a transmission step of transmitting plural response signals containing verification data contained in received search information through the wireless communication unit; and

a second reception step of receiving authentication information through the wireless communication unit after transmission is performed in the transmission step,

wherein when authentication information is received in the second reception step, communication is subsequently performed with the wireless communication apparatus on the basis of the authentication information.

19. (Canceled)